

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Dr. N. B. Duc Examiner #: 6932 Date: 12/11/03
 Art Unit: 1711 Phone Number: 30 Serial Number: 16184876
 Mail Box and Bldg/Room Location: 16 D71 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): _____

Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

The general formula of claim 1. Thanks.

STAFF USE ONLY**Type of Search****Vendors and cost where applicable**

Searcher: _____	NA Sequence (#) _____	STN _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr. Link _____
Date Completed: _____	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

=> file reg
FILE 'REGISTRY' ENTERED AT 15:45:31 ON 15 DEC 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 14 DEC 2003 HIGHEST RN 627034-55-3
DICTIONARY FILE UPDATES: 14 DEC 2003 HIGHEST RN 627034-55-3

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

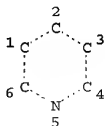
=> file caplus
FILE 'CAPLUS' ENTERED AT 15:45:34 ON 15 DEC 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
American Chemical Society and is provided to assist you in searching
databases on STN. Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 15 Dec 2003 VOL 139 ISS 25
FILE LAST UPDATED: 14 Dec 2003 (20031214/ED)

This file contains CAS Registry Numbers for easy and accurate
substance identification.

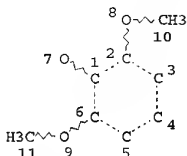
=> d que
L3 SCR 2043
L12 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

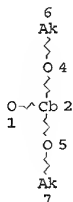
STEREO ATTRIBUTES: NONE
 L15 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 11

STEREO ATTRIBUTES: NONE
 L17 6 SEA FILE=REGISTRY SSS FUL L15 AND L12 AND L3
 L18 3 SEA FILE=CAPLUS ABB=ON PLU=ON L17
 L21 STR



NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE

L23 19 SEA FILE=REGISTRY SSS FUL L21 AND L12 AND L3
 L25 12 SEA FILE=CAPLUS ABB=ON PLU=ON L18 OR L23

=> d ti 1-12

L25 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
 TI Solid electrolyte using porous polymer

L25 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
 TI Conjugated polymers containing spirobifluorene units and the use thereof

L25 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
 TI Optical properties of segmented cyano-containing PPV-based chromophore for fluorescent sensing

L25 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
 TI Polymers and dienes, their synthesis, and electronic devices incorporating same

L25 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
 TI Polymer-supported ligands, procedures for their production and their use as catalysts

L25 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
 TI Application of the continuous Sharpless dihydroxylation

L25 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
 TI Asymmetric dihydroxylations using immobilized alkaloids with an

anthraquinone core

L25 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
TI A novel fluorescent monomer for the selective detection of phenols and anilines

L25 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
TI Molecular imprinting via a novel mixed acetal linker for a fluorescent sensor

L25 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
TI Covalently immobilized fluoroionophores as optical ion sensors

L25 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
TI Supramolecular Electrode Materials Derived from Pyrrole-Substituted Ruthenium(II) Bipyridyl Calix[4]arenes

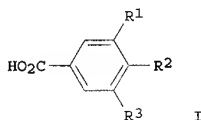
L25 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
TI Oligomers containing carbocyanine/flexible chain segments as nonlinear optical materials

=> d ibib abs hitstr ind total

L25 ANSWER 1 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:531597 CAPLUS
DOCUMENT NUMBER: 139:103747
TITLE: Solid electrolyte using porous polymer
INVENTOR(S): Nakamura, Shinichi; Igawa, Satoshi
PATENT ASSIGNEE(S): Canon Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 2003197263	A2	20030711	JP 2001-394363	20011226

PRIORITY APPLN. INFO.: JP 2001-394363 20011226
GI



AB The electrolyte, especially for a secondary lithium battery, has a polymer obtained by polymerization of a compound I [R1, R2 and R3 = H, halo or C1-18 alkyl]

group having ≥ 1 -CH2- is substituted by -O-, -CO-, -Pha-, -CH=CH-, -C(CH3)=CH-, -CC- or epoxy group; Pha = 1,4-phenylene which may be substituted by C1-25 alkyl group having ≥ 1 -CH2- is substituted by -O-, -CO-, -CH=CH-, -C(CH3)=CH-, -CC- or epoxy group; and ≥ 1 of R1, R2 and R3 = acryl, methacryl, vinyl, or epoxy group] and having several hollow parts inside; where the hollow parts are filled with a metal salt electrolyte solution

IT 558474-11-6P 558474-14-9P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(solid electrolytes using porous polymers for secondary lithium batteries)

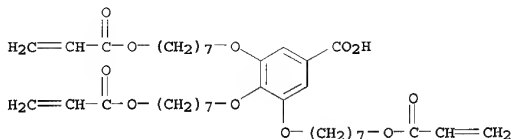
RN 558474-11-6 CAPLUS

CN Benzoic acid, 3,4,5-tris[[7-[(1-oxo-2-propenyl)oxy]heptyl]oxy]-, polymer with N-4-pyridinyl-4-pyridinecarboxamide (9CI) (CA INDEX NAME)

CM 1

CRN 558474-10-5

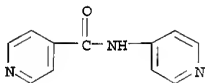
CMF C37 H54 O11



CM 2

CRN 64479-78-3

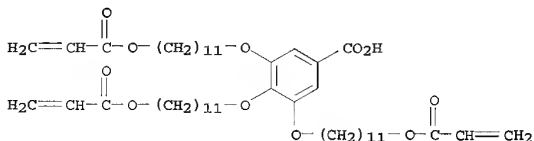
CMF C11 H9 N3 O



RN 558474-14-9 CAPLUS
 CN Benzoic acid, 3,4,5-tris[[1-[(1-oxo-2-propenyl)oxy]undecyl]oxy]-, polymer
 with N-4-pyridinyl-4-pyridinecarboxamide (9CI) (CA INDEX NAME)

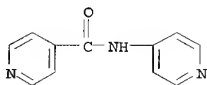
CM 1

CRN 210822-61-0
 CMF C49 H78 O11



CM 2

CRN 64479-78-3
 CMF C11 H9 N3 O



IC ICM H01M010-40
 ICS H01B001-06
 CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
 ST secondary lithium battery solid electrolyte porous polymer
 IT Battery electrolytes
 Polymer electrolytes
 (solid electrolytes using porous polymers for secondary lithium
 batteries)
 IT 96-48-0, γ -Butyrolactone 96-49-1, Ethylene carbonate 108-32-7,
 Propylene carbonate 109-99-9, Tetrahydrofuran, uses 14283-07-9,
 Lithium tetrafluoroborate

RL: DEV (Device component use); USES (Uses)
(solid electrolytes using porous polymers for secondary lithium batteries)

IT 558474-07-0P 558474-09-2P 558474-11-6P 558474-12-7P
558474-13-8P 558474-14-9P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(solid electrolytes using porous polymers for secondary lithium batteries)

L25 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:202698 CAPLUS

DOCUMENT NUMBER: 138:238568

TITLE: Conjugated polymers containing spirobifluorene units and the use thereof

INVENTOR(S): Becker, Heinrich; Treacher, Kevin; Spreitzer, Hubert; Falcou, Aurelie; Stoessel, Philipp; Buesing, Arne; Parham, Amir

PATENT ASSIGNEE(S): Covion Organic Semiconductors G.m.b.H., Germany

SOURCE: PCT Int. Appl., 58 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003020790	A2	20030313	WO 2002-EP9628	20020829
WO 2003020790	A3	20030912		

W: CN, JP, KR, US

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR

DE 10143353 A1 20030320

DE 2001-10143353 20010904

PRIORITY APPLN. INFO.: DE 2001-10143353 A 20010904

AB Spirobifluorene-type unit-containing conjugated polymer, useful in optoelectronic devices, are manufactured containing ≥ 1 addnl. unit that (a) improves the insertion or transportation of holes, (b) improves the insertion or transportation of electrons, (c) accomplishes both (a) and (b), and (d) exhibits phosphorescence. A typical polymer was manufactured by polymerization of 1.768 g 2,7-dibromo-2',3',6',7'-tetrakis(2-methylbutoxy)spirobifluorene with 0.183 g N,N'-bis(4-bromophenyl)-N,N'-bis(4-tert-butylphenyl)benzidine by the Yamamoto coupling in PhMe-DMF mixture in the presence of 1,5-cyclooctadiene, Ni(COD)₂, and 2,2'-bipyridyl.

IT 501435-05-8P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(conjugated polymers containing spirobifluorene units and units that phosphoresce for optoelectronic devices)

RN 501435-05-8 CAPLUS

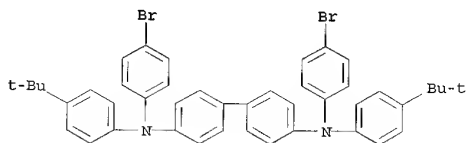
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-bromophenyl)-N,N'-bis[4-(1,1-dimethylethyl)phenyl]-, polymer with 5,8-dibromo-2,3-di-2-pyridinylquinoxaline, 2,7-dibromo-2',3',6',7'-tetrakis(2-methylbutoxy)-

9,9'-spirobi[9H-fluorene] and 2,2'-[2',3',6',7'-tetrakis(2-methylbutoxy)-
9,9'-spirobi[9H-fluorene]-2,7-diyl]bis[1,3,2-dioxaborolane] (9CI) (CA
INDEX NAME)

CM 1

CRN 463944-36-7

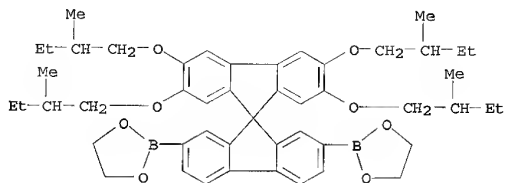
CMF C44 H42 Br2 N2



CM 2

CRN 396123-43-6

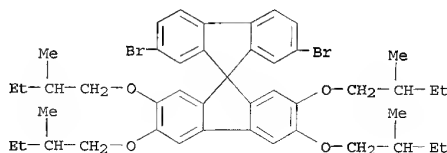
CMF C49 H62 B2 O8



CM 3

CRN 395059-23-1

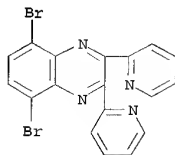
CMF C45 H54 Br2 O4



CM 4

CRN 175858-16-9

CMF C18 H10 Br2 N4



IC ICM C08G061-00

ICS C09K011-06; H05B033-14; H01L051-30

CC 35-5 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 73, 76

ST conjugated spirobifluorene polymer optoelectronic device; dibromotetrakis methylbutoxyspirobifluorene copolymer bisbromophenyl tertiary butylphenyl benzidine manuf

IT Optoelectronic semiconductor devices

(conjugated polymers containing spirobifluorene units and units that phosphoresce for optoelectronic devices)

IT Cardo polymers

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)

(conjugated polymers containing spirobifluorene units and units that phosphoresce for optoelectronic devices)

IT Luminescent substances

(electroluminescent; conjugated polymers containing spirobifluorene units and units that phosphoresce for optoelectronic devices)

IT	501434-82-8P	501434-83-9P	501434-85-1P	501434-87-3P	501434-88-4P
	501434-90-8P	501434-92-0P	501434-94-2P	501434-95-3P	501434-96-4P
	501434-97-5P	501434-98-6P	501434-99-7P	501435-00-3P	501435-01-4P
	501435-03-6P	501435-04-7P	501435-05-8P	501435-07-0P	
	501435-08-1P	501435-10-5P	501435-11-6P	501435-12-7P	501435-13-8P
	501435-14-9P	501435-15-0P	501435-16-1P	501435-17-2P	501435-18-3P
	501435-20-7P	501435-21-8P	501435-23-0P	501435-24-1P	501435-25-2P

501435-26-3P 501435-27-4P 501435-28-5P 501435-29-6P 501435-30-9P
501657-52-9P

RL: IMF (Industrial manufacture); PRP (Properties); PREP (Preparation)
(conjugated polymers containing spirobifluorene units and units that
phosphoresce for optoelectronic devices)

IT 165190-76-1P, 4,7-Bis(thien-2-yl)-2,1,3-benzothiadiazole 501434-69-1P,
5'-tert-Butyl-2'-(4''-tert-butylphenyl)-2,3-bis(2-methylbutyloxy)biphenyl
501434-70-4P, 2-Bromo-5'-tert-butyl-2'-(4''-tert-butylphenyl)-4,5-bis(2-
methylbutyloxy)biphenyl 501434-74-8P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)

(monomer precursor; conjugated polymers containing spirobifluorene units
and units that phosphoresce for optoelectronic devices)

IT 122-39-4, Diphenylamine, reactions 134-81-6, Benzil 328-70-1,
1-Bromo-3,5-bis(trifluoromethyl)benzene 401-78-5, 1-Bromo-3-
trifluoromethylbenzene 553-94-6, 2-Bromo-1,4-dimethylbenzene
1122-91-4, 4-Bromobenzaldehyde 6165-68-0, Thiophene-2-boronic acid
14348-75-5, 2,7-Dibromofluorene-9-one 15155-41-6, 4,7-Dibromo-2,1,3-
benzothiadiazole 31558-41-5, 4-Bromo-2,5-dimethoxybenzaldehyde
69272-50-0, 3,6-Dibromo-1,2-phenylenediamine 70728-89-1,
2-Bromo-4,4'-di-tert-butylbiphenyl 171408-84-7, 2,7-Dibromo-9,9'-
spirobifluorene 171408-88-1, 2,7-Diiodo-2',7'-dibromo-9,9'-
spirobifluorene 340148-67-6, 3,4-Bis(2-methylbutyloxy)benzeneboronic
acid 501434-77-1D, derivs. 501434-79-3D, derivs.

RL: RCT (Reactant); RACT (Reactant or reagent)

(monomer precursor; conjugated polymers containing spirobifluorene units
and units that phosphoresce for optoelectronic devices)

IT 94544-77-1P, 5,8-Dibromo-2,3-diphenylquinoxaline 288071-87-4P,
4,7-Bis(2-bromo-5-thienyl)-2,1,3-benzothiadiazole 501434-68-0P,
2,7-Dibromo-8'-tert-butyl-5'-(4''-tert-butylphenyl)-2',3'-bis(2-
methylbutyloxy)spirobifluorene 501434-71-5P 501434-72-6P
501434-73-7P, 4-Bromo-7-(2-bromo-5-thienyl)-2,1,3-benzothiadiazole
501434-75-9P, 1-(2-Ethylhexyloxy)-4-methoxy-2,5-bis-(4-bromo-2,5-
dimethoxystyryl)benzene 501434-76-0P, 2,3,6,7-Tetrakis(2-methylbutoxy)-
2',7'-bis(4-bromostyryl)-9,9'spirobifluorene 501434-78-2P,
1,4-Dibromo-2,5-(4-fluorostyryl)benzene 501434-80-6P,
2,7-Dibromo-2',7'-(N,N-diphenylamino)-9,9'-spirobifluorene 501657-51-8P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)

(monomer; conjugated polymers containing spirobifluorene units and units
that phosphoresce for optoelectronic devices)

L25 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:893977 CAPLUS

DOCUMENT NUMBER: 138:310853

TITLE: Optical properties of segmented cyano-containing
PPV-based chromophore for fluorescent sensing

AUTHOR(S): Lee, Taek Seung; Na, Jongho; Lee, Jin Kyun; Park, Won
Ho

CORPORATE SOURCE: Department of Textile Engineering, Organic and
Optoelectronic Materials Laboratory, Chungnam National
University, Taejeon, 305-764, S. Korea

SOURCE: Optical Materials (Amsterdam, Netherlands) (2003),
21(1-3), 429-432
CODEN: OMATET; ISSN: 0925-3467
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Optical metal ion responsive properties of segmented cyano-PFV derivative with pyridyl group are reported. The polymer solution in DMF exhibited absorption maximum at 346 nm and emission maximum at .apprx.470 nm (excitation wavelength 346 nm). A new absorption was observed at 296 nm by addition of ferric and uranyl ions to the polymer solution presumably due to charge transfer interaction between polymer chain and metal ion. Consecutive fluorescence quenching was induced upon exposure to ferric ion. It is presumed that the metal ion binding leads to produce trapping sites for the excitation resulting in fluorescence quenching.

IT 509078-08-4P

RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)
(optical properties of segmented cyano-containing PFV-based chromophore for fluorescent sensing and effect of iron and uranyl ions)

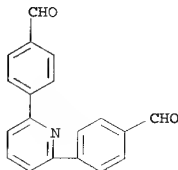
RN 509078-08-4 CAPLUS

CN 1,4-Benzenediacetonitrile, polymer with 4,4'-[1,8-octanediy]bis(oxy)]bis[2,6-dimethoxybenzaldehyde] and 4,4'-(2,6-pyridinediyl)bis[benzaldehyde] (9CI) (CA INDEX NAME)

CM 1

CRN 509078-07-3

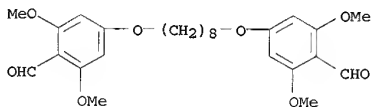
CMF C19 H13 N O2



CM 2

CRN 213980-90-6

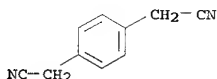
CMF C26 H34 O8



CM 3

CRN 622-75-3

CMF C10 H8 N2



CC 73-2 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 36

ST optical property segmented cyano PPV fluorescent polymer; sensing polymer uranyl iron ion

IT Optical sensors

(materials for; optical properties of segmented cyano-containing PPV-based chromophore for fluorescent sensing and effect of iron and uranyl ions)

IT Fluorescence quenching

UV and visible spectra

(optical properties of segmented cyano-containing PPV-based chromophore for fluorescent sensing and effect of iron and uranyl ions)

IT 16637-16-4P, Uranyl ion(2+) 509078-08-4P

RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)

(optical properties of segmented cyano-containing PPV-based chromophore for fluorescent sensing and effect of iron and uranyl ions)

IT 622-75-3, 1,4-Phenylenediacetonitrile 213980-90-6 509078-07-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(optical properties of segmented cyano-containing PPV-based chromophore for fluorescent sensing and effect of iron and uranyl ions)

IT 7439-89-6P, Iron, properties

RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)

(trivalent ions; optical properties of segmented cyano-containing PPV-based chromophore for fluorescent sensing and effect of iron and uranyl ions)

REFERENCE COUNT:

15

THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:716337 CAPLUS

DOCUMENT NUMBER: 137:248122

TITLE: Polymers and dienes, their synthesis, and electronic

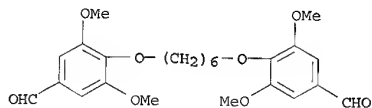
INVENTOR(S): devices incorporating same
 EPSTEIN, ARTHUR; WANG, DAIKE
 PATENT ASSIGNEE(S): The Ohio State University, USA
 SOURCE: PCT Int. Appl., 54 pp.
 CODEN: FIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

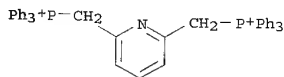
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002072654	A2	20020919	WO 2002-US7420	20020312
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG US 2002177637 A1 20021128 US 2002-84866 20020228 US 2001-275443P P 20010313 US 2001-275762P P 20010314 US 2002-84866 A 20020228				
PRIORITY APPLN. INFO.:				
AB Polymers having RCH:CHR1CH:CHR groups [R = substituted phenylene or (substituted) pyridinediyl] in the backbone and RCH:CHR1CH:CHR [R = (substituted) quinolinyl, (substituted) pyridinyl, substituted Ph, or (substituted) naphthyl; R1 = (substituted) C6H4 or (substituted) pyridinediyl] are manufactured A typical polymer was manufactured by refluxing mixture containing 150 mL THF, 502 mg 1,6-bis(2,6-dimethoxy-4-carbonylphenoxy)hexane, 890 g 2,6-pyridinediylbis(triphenylphosphonium bromide), and 10 mL 2M KO-tert-Bu in THF. IT 460061-29-4P 460061-30-7P 460061-32-9P 460061-33-0P RL: IMF (Industrial manufacture); PREP (Preparation) (conjugated unsatd. aromatic polymers and divinylarylene compds. for electronic devices) RN 460061-29-4 CAPLUS CN Phosphonium, [2,6-pyridinediylbis(methylene)]bis(triphenyl-, dibromide, polymer with 4,4'-[1,6-hexanediy]bis(oxy)]bis[3,5-dimethoxybenzaldehyde] (9CI) (CA INDEX NAME) CM 1 CRN 204185-68-2 CMF C24 H30 O8				



CM 2

CRN 143756-79-0

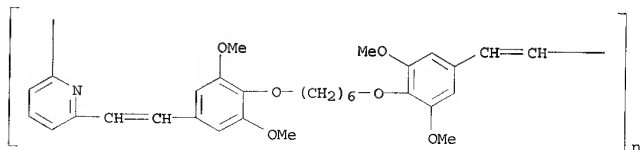
CMF C43 H37 N P2 . 2 Br



● 2 Br⁻

RN 460061-30-7 CAPLUS

CN Poly[2,6-pyridinediyl-1,2-ethenediyl(3,5-dimethoxy-1,4-phenylene)oxy-1,6-hexanedioxy(2,6-dimethoxy-1,4-phenylene)-1,2-ethenediyl] (9CI) (CA INDEX NAME)



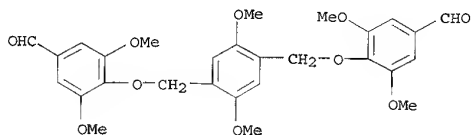
RN 460061-32-9 CAPLUS

CN Phosphonium, [2,6-pyridinediylbis(methylene)]bis(triphenyl-, dibromide, polymer with 4,4'-[(2,5-dimethoxy-1,4-phenylene)bis(methyleneoxy)]bis[3,5-dimethoxybenzaldehyde] (9CI) (CA INDEX NAME)

CM 1

CRN 460061-31-8

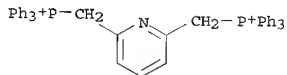
CMF C28 H30 O10



CM 2

CRN 143756-79-0

CMF C43 H37 N P2 . 2 Br

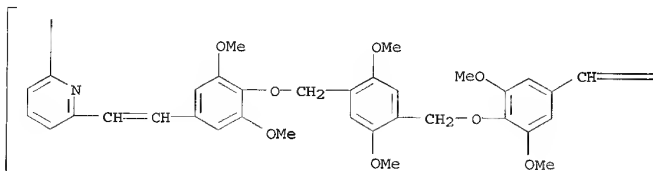


● 2 Br⁻

RN 460061-33-0 CAPLUS

CN Poly[2,6-pyridinediyl-1,2-ethenediyl (3,5-dimethoxy-1,4-phenylene) oxymethylene (2,5-dimethoxy-1,4-phenylene) methyleneoxy (2,6-dimethoxy-1,4-phenylene)-1,2-ethenediyl] (9CI) (CA INDEX NAME)

PAGE 1-A

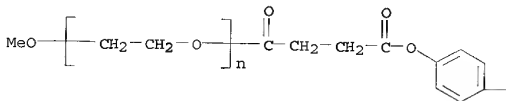


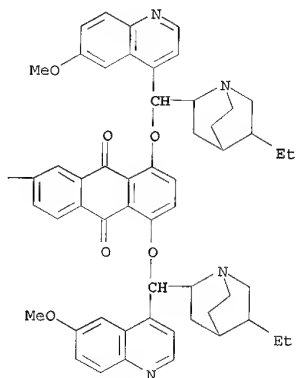
Karau, Andreas; Philippe, Jean-Louis; Bommarius, Andreas; Drauz, Karlheinz; Krimmer, Hans-Peter
 PATENT ASSIGNEE(S): Degussa Ag, Germany
 SOURCE: Ger. Offen., 28 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10036328	A1	20020110	DE 2000-10036328	20000726
PRIORITY APPLN. INFO.:			DE 2000-10029600 A1 20000615	
OTHER SOURCE(S):			MARPAT 136:87503	

- AB The invention treats optically active homogeneous soluble polymer-supported ligands containing, as the active unit causing chiral induction, ≥ 1 of anthraquinone, dihydroquinidine, and dihydroquinine groups, with the polymer being selected from polyacrylates, polyvinylpyrrolidone, polysiloxanes, polybutadiene, polyisoprene, hydrocarbon polymers, PEG, PPG, polystyrene, and polyoxazoline, for use in manufacture of enantiomer-enriched organic compds., preferably in dihydroxylation and aminohydroxylation of unsatd. compds. A typical catalyst was manufactured by stirring DCM containing $\text{MeO}(\text{CH}_2\text{CH}_2\text{O})\text{nCOCH}_2\text{CH}_2\text{CO}_2\text{H}$ 0.51, 1,4-bis(9-O-dihydroquinidinyl)-9-(4-hydroxyphenyl)anthraquinone 0.14, DMAP 0.003, and DCC 0.02 g 24 h.
- IT 332877-55-1P 332877-56-2P 332877-58-4P
 332877-59-5P 386704-25-2P 386704-27-4P
 RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);
 USES (Uses)
 (polymer-supported optically active ligands for catalysts of enantiomeric dihydroxylation and aminohydroxylation of unsatd. compds.)
- RN 332877-55-1 CAPLUS
- CN Poly[oxy-1,2-ethanediyl], α -[4-[4-[5,8-bis[[[(9S)-10,11-dihydro-6'-methoxycinchonan-9-yl]oxy]-9,10-dihydro-9,10-dioxo-2-anthracenyl]phenoxy]-1,4-dioxobutyl]- α -methoxy- (9CI) (CA INDEX NAME)

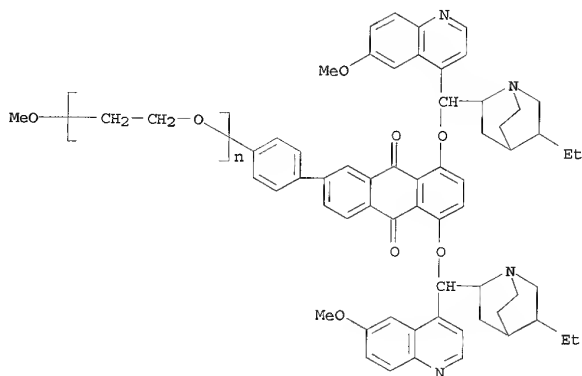
PAGE 1-A





RN 332877-56-2 CAPLUS

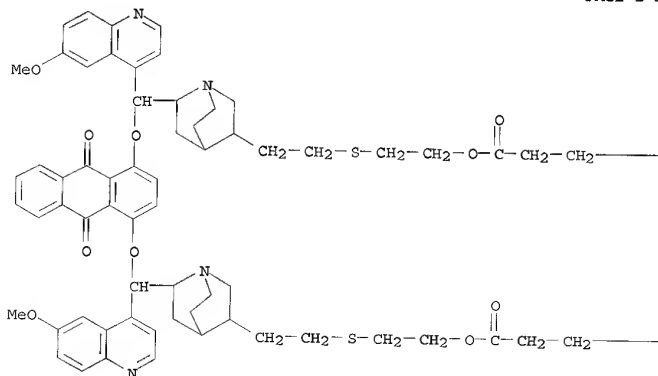
CN Poly(oxy-1,2-ethanediyl), α -[4-[5,8-bis[[[(9S)-10,11-dihydro-6'-methoxycinchonan-9-yl]oxy]-9,10-dihydro-9,10-dioxo-2-anthracenyl]phenyl]- ω -methoxy- (9CI) (CA INDEX NAME)

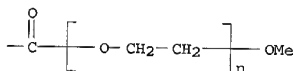
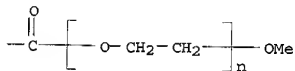


RN 332877-58-4 CAPLUS

CN Poly(oxy-1,2-ethanediyl), α, α' -(9,10-dihydro-9,10-dioxo-1,4-anthracenediyl)bis[oxy[(9S)-10,11-dihydro-6'-methoxycinchonan-9,11-diyl]thio-2,1-ethanediyl]oxy(1,4-dioxo-4,1-butanediyl)]bis[6-methoxy-(9CI) (CA INDEX NAME)

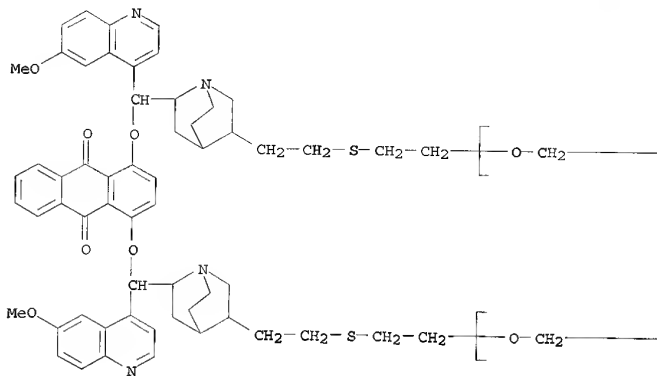
PAGE 1-A



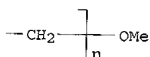
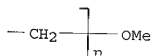


RN 332877-59-5 CAPLUS

CN Poly(oxy-1,2-ethanediyl), α, α' -(9,10-dihydro-9,10-dioxo-1,4-anthracenediyl)bis[oxy[(9S)-10,11-dihydro-6'-methoxycinchonan-9,11-diyl]thio-2,1-ethanediyl]bis[ω -methoxy- (9CI) (CA INDEX NAME)



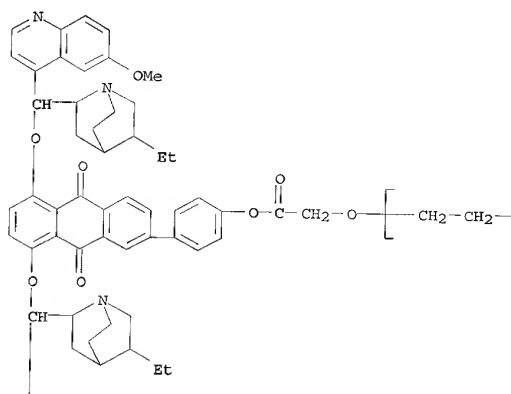
PAGE 1-B



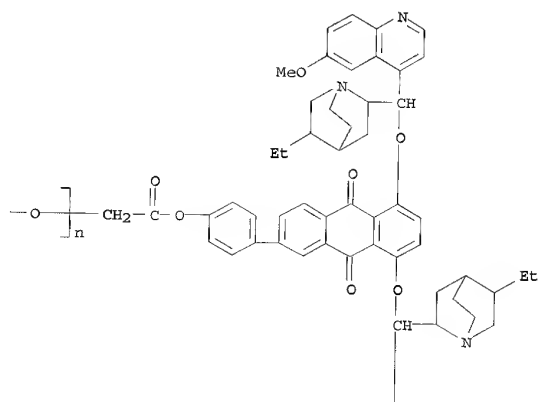
RN 386704-25-2 CAPLUS

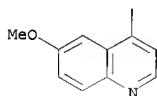
CN Poly(oxy-1,2-ethanediyl), α -[2-[4-[5,8-bis[{(9S)-10,11-dihydro-6'-methoxycinchonan-9-yl]oxy]-9,10-dihydro-9,10-dioxo-2-anthracenyl]phenoxy]-2-oxoethyl]- ϕ -[2-[4-[5,8-bis[{(9S)-10,11-dihydro-6'-methoxycinchonan-9-yl]oxy]-9,10-dihydro-9,10-dioxo-2-anthracenyl]phenoxy]-2-oxoethoxy]-(9CI) (CA INDEX NAME)

PAGE 1-A

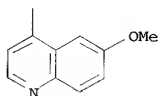


PAGE 1-B





PAGE 2-A

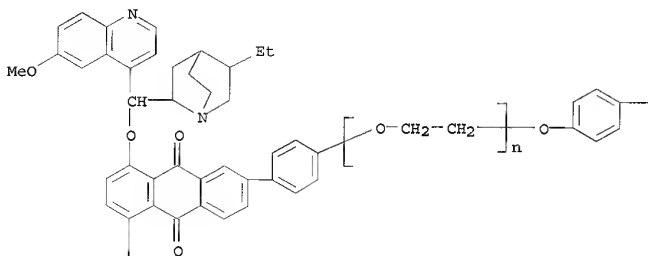


PAGE 2-B

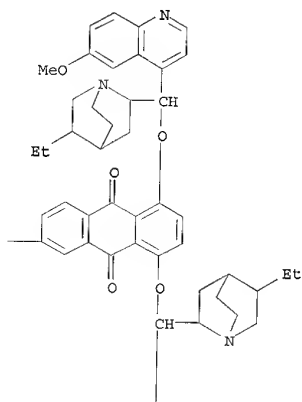
RN 386704-27-4 CAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[4-[5,8-bis[[[(9S)-10,11-dihydro-6'-methoxycinchonan-9-yl]oxy]-9,10-dihydro-9,10-dioxo-2-anthracenyl]phenyl]-
 6-[4-[5,8-bis[[[(9S)-10,11-dihydro-6'-methoxycinchonan-9-yl]oxy]-9,10-dihydro-9,10-dioxo-2-anthracenyl]phenoxy]-(9CI) (CA INDEX NAME)

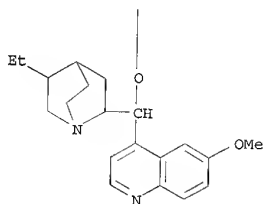
PAGE 1-A



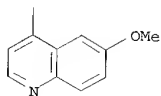
PAGE 1-B



PAGE 2-A



PAGE 2-B



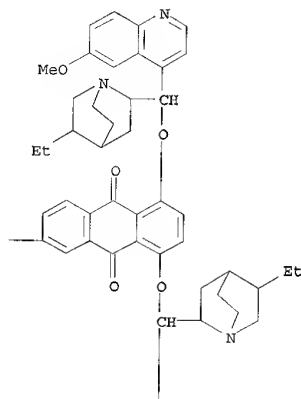
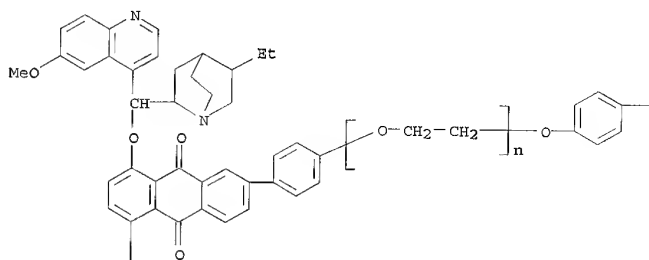
IC ICM C08F008-00
CC 45-4 (Industrial Organic Chemicals, Leather, Fats, and Waxes)

KOROMA EIC1700

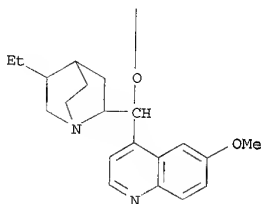
Section cross-reference(s): 23, 67

- ST anthraquinone quinidine quinine deriv catalyst polyacrylate supported enantiomeric hydroxylation; polyoxazoline supported anthraquinone quinidine quinine deriv catalyst enantiomeric hydroxylation; polystyrene supported anthraquinone quinidine quinine deriv catalyst enantiomeric hydroxylation; PPG supported anthraquinone quinidine quinine deriv catalyst enantiomeric hydroxylation; PEG supported anthraquinone quinidine quinine deriv catalyst enantiomeric hydroxylation; polyisoprene supported anthraquinone quinidine quinine deriv catalyst enantiomeric hydroxylation; polybutadiene supported anthraquinone quinidine quinine deriv catalyst enantiomeric hydroxylation; polysiloxane supported anthraquinone quinidine quinine deriv catalyst enantiomeric hydroxylation; aminohydroxylation enantiomeric anthraquinone quinidine quinine deriv catalyst polyvinylpyrrolidone supported
- IT Polyamines
 RL: CAT (Catalyst use); USES (Uses)
 (polyethylene-, N-acyl, support; polymer-supported optically active ligands for catalysts of enantiomeric dihydroxylation and aminohydroxylation of unsatd. compds.)
- IT Aminohydroxylation catalysts
 Dihydroxylation catalysts
 Polymer-supported reagents
 (polymer-supported optically active ligands for catalysts of enantiomeric dihydroxylation and aminohydroxylation of unsatd. compds.)
- IT Unsaturated compounds
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (polymer-supported optically active ligands for catalysts of enantiomeric dihydroxylation and aminohydroxylation of unsatd. compds.)
- IT Polyethers, uses
 Polysiloxanes, uses
 RL: CAT (Catalyst use); USES (Uses)
 (support; polymer-supported optically active ligands for catalysts of enantiomeric dihydroxylation and aminohydroxylation of unsatd. compds.)
- IT 86-90-8P, 4-Bromophthalic anhydride 28736-42-7P, 1,4-Difluoroanthraquinone 332877-52-8P 386704-19-4P 386704-21-8P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (ligand precursor; polymer-supported optically active ligands for catalysts of enantiomeric dihydroxylation and aminohydroxylation of unsatd. compds.)
- IT 56-54-2, Quinidine 60-24-2, 2-Mercaptoethanol 85-44-9, Phthalic anhydride 98-80-6, Phenylboronic acid 540-36-3, 1,4-Difluorobenzene 583-71-1, 4-Bromo-o-xylene 1435-55-8, Dihydroquinidine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (ligand precursor; polymer-supported optically active ligands for catalysts of enantiomeric dihydroxylation and aminohydroxylation of unsatd. compds.)
- IT 332877-54-0P 332877-57-3P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (ligand; polymer-supported optically active ligands for catalysts of enantiomeric dihydroxylation and aminohydroxylation of unsatd. compds.)

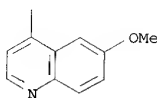
- IT 332877-55-1P 332877-56-2P 332877-58-4P
332877-59-5P 386704-25-2P 386704-27-4P
RL: CAT (Catalyst use); IMF (Industrial manufacture); PREP (Preparation);
USES (Uses)
(polymer-supported optically active ligands for catalysts of
enantimeric dihydroxylation and aminohydroxylation of unsatd. compds.)
- IT 52611-39-9P, S-1-Iodo-2,3-propanediol 71214-80-7P, 1R,2S-1,2-Indandiol
195625-05-9P
RL: IMF (Industrial manufacture); PREP (Preparation)
(polymer-supported optically active ligands for catalysts of
enantimeric dihydroxylation and aminohydroxylation of unsatd. compds.)
- IT 79-15-2, N-Bromoacetamide 95-13-6, Indene 556-56-9, Allyl iodide
7780-06-5, Isopropyl cinnamate
RL: RCT (Reactant); RACT (Reactant or reagent)
(polymer-supported optically active ligands for catalysts of
enantimeric dihydroxylation and aminohydroxylation of unsatd. compds.)
- IT 79-10-7D, Acrylic acid, esters, polymers 9003-17-2, Polybutadiene
9003-31-0, Polyisoprene 9003-39-8, Polyvinylpyrrolidone 9003-53-6,
Polystyrene
RL: CAT (Catalyst use); USES (Uses)
(support; polymer-supported optically active ligands for catalysts of
enantimeric dihydroxylation and aminohydroxylation of unsatd. compds.)
- L25 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2001:755142 CAPLUS
DOCUMENT NUMBER: 136:216511
TITLE: Application of the continuous Sharpless
dihydroxylation
AUTHOR(S): Woltinger, Jens; Henniges, Hans; Krimmer, Hans-Peter;
Bommarius, Andreas S.; Drauz, Karlheinz
CORPORATE SOURCE: Business Unit Fine Chemicals, Degussa AG, Hanau,
D-63403, Germany
SOURCE: Tetrahedron: Asymmetry (2001), 12(15), 2095-2098
CODEN: TASYE3; ISSN: 0957-4166
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
- AB A continuously run Sharpless dihydroxylation in a membrane reactor gives
information on osmate leaching in high mol. weight, homogeneous AD catalysts,
allowing conclusions on the leaching of heterogeneous Sharpless catalysts
to be drawn. To date, there have been contradictory descriptions of this
problem in the literature.
- IT 386704-27-4
RL: CAT (Catalyst use); USES (Uses)
(continuous Sharpless dihydroxylation)
- RN 386704-27-4 CAPLUS
- CN Poly(oxy-1,2-ethanediyl), α -[4-[5,8-bis[[[(9S)-10,11-dihydro-6'-
methoxycinchonan-9-yl]oxy]-9,10-dihydro-9,10-dioxo-2-anthracenyl]phenyl]-
 α -[4-[5,8-bis[[[(9S)-10,11-dihydro-6'-methoxycinchonan-9-yl]oxy]-9,10-
dihydro-9,10-dioxo-2-anthracenyl]phenoxy]- (9CI) (CA INDEX NAME)



PAGE 2-A



PAGE 2-B



CC 25-18 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 ST continuous Sharpless dihydroxylation osmate leaching
 IT Dihydroxylation

(stereoselective, continuous; of tert-Bu homocinnamate)

IT 19718-36-6, Dipotassium osmate 386704-27-4

RL: CAT (Catalyst use); USES (Uses)

(continuous Sharpless dihydroxylation)

IT 154457-63-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(continuous Sharpless dihydroxylation)

IT 402752-95-8P

RL: SPN (Synthetic preparation); PREP (Preparation)

(continuous Sharpless dihydroxylation)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2003 ACS ON STN

ACCESSION NUMBER: 2001:61268 CAPLUS

DOCUMENT NUMBER: 134:280368

TITLE: Asymmetric dihydroxylations using immobilized
 alkaloids with an anthraquinone core

AUTHOR(S): Bolm, Carsten; Maischak, Astrid

CORPORATE SOURCE: Institut für Organische Chemie der RWTH Aachen,
 Aachen, 52056, Germany

SOURCE: Synlett (2001), (1), 93-95

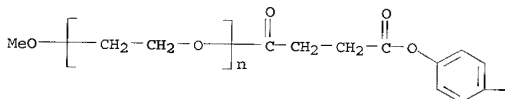
CODEN: SYNLES; ISSN: 0936-5214

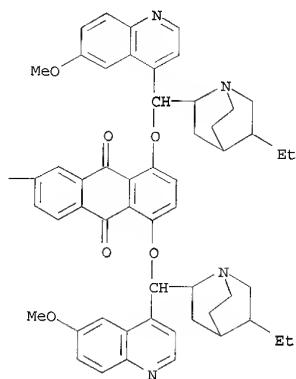
PUBLISHER: Georg Thieme Verlag

DOCUMENT TYPE: Journal

LANGUAGE: English
 OTHER SOURCE(S): CASREACT 134:280368
 AB In Os-catalyzed dihydroxylations, use of polymer-supported alkaloids with an anthraquinone core allows to obtain optically active diols with high enantioselectivities. Soluble as well as insol. polymers were tested for immobilization.
 IT 332877-55-1P 332877-56-2P 332877-58-4P
 332877-59-5P
 RL: CAT (Catalyst use); SPN (Synthetic preparation); PREP (Preparation);
 USES (Uses)
 (asym. dihydroxylation using immobilized alkaloids with anthraquinone core)
 RN 332877-55-1 CAPLUS
 CN Poly(oxy-1,2-ethanediyl), α -[4-[4-[5,8-bis[[[(9S)-10,11-dihydro-6'-methoxycinchonan-9-yl]oxy]-9,10-dihydro-9,10-dioxo-2-anthracenyl]phenoxy]-1,4-dioxobutyl]- α -methoxy- (9CI) (CA INDEX NAME)

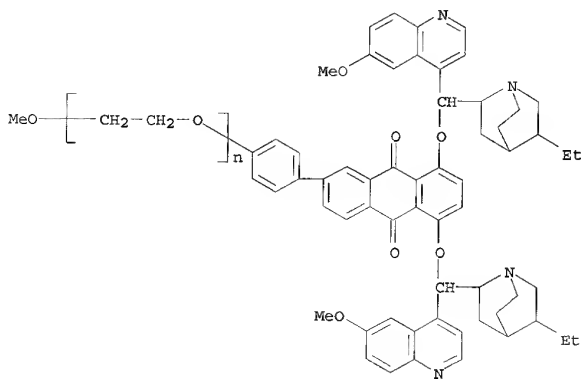
PAGE 1-A





RN 332877-56-2 CAPLUS

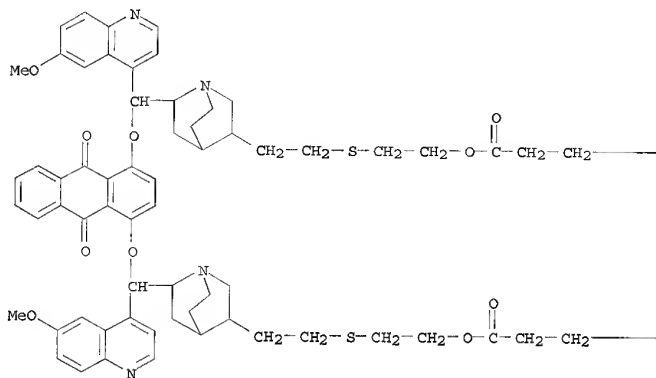
CN Poly(oxy-1,2-ethanediyl), α -[4-[5,8-bis[[(9S)-10,11-dihydro-6'-methoxycinchonan-9-yl]oxy]-9,10-dihydro-9,10-dioxo-2-anthracenyl]phenyl]- ω -methoxy- (9CI) (CA INDEX NAME)

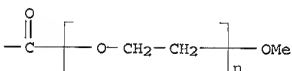
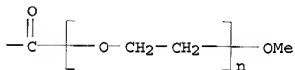


RN 332877-58-4 CAPLUS

CN Poly(oxy-1,2-ethanediyl), α, α' -(9,10-dihydro-9,10-dioxo-1,4-anthracenediyl)bis[oxy[(9S)-10,11-dihydro-6'-methoxycinchonan-9,11-diyl]thio-2,1-ethanediyl]oxy(1,4-dioxo-4,1-butanediyl)bis[ω -methoxy-(9CI) (CA INDEX NAME)

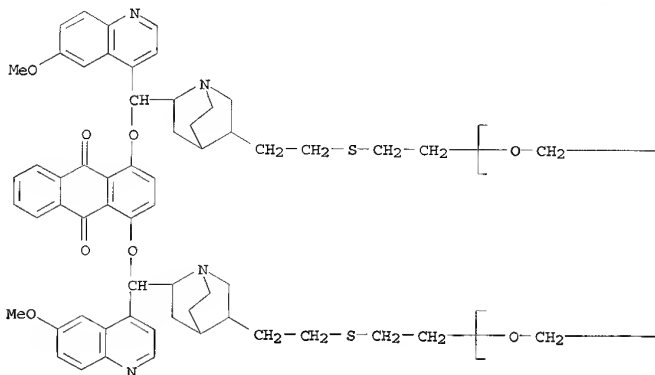
PAGE 1-A





RN 332877-59-5 CAPLUS

CN Poly(oxy-1,2-ethanediyl), α, α' -(9,10-dihydro-9,10-dioxo-1,4-anthracenediyl)bis[oxy[(9S)-10,11-dihydro-6'-methoxycinchonan-9,11-diyl]thio-2,1-ethanediyl]bis[ω -methoxy- (9CI) (CA INDEX NAME)]



(asym. dihydroxylation using immobilized alkaloids with anthraquinone core)

IT 554-10-9P, 3-Iodo-1,2-propanediol 4370-02-9P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (asym. dihydroxylation using immobilized alkaloids with anthraquinone core)

IT 540-36-3, 1,4-Difluorobenzene 583-71-1, 4-Bromo-1,2-xylene 1435-55-8, Dihydroquinidine 28736-42-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of immobilized alkaloids with anthraquinone core as catalysts for asym. dihydroxylation)

IT 332877-52-8P 332877-53-9P 332877-57-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation of immobilized alkaloids with anthraquinone core as catalysts for asym. dihydroxylation)

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:268758 CAPLUS

DOCUMENT NUMBER: 131:13121

TITLE: A novel fluorescent monomer for the selective detection of phenols and anilines

AUTHOR(S): Reppy, Mary A.; Cooper, Martin E.; Smithers, Juston L.; Gin, Douglas L.

CORPORATE SOURCE: Department of Chemistry, University of California, Berkeley, CA, 94720-1460, USA

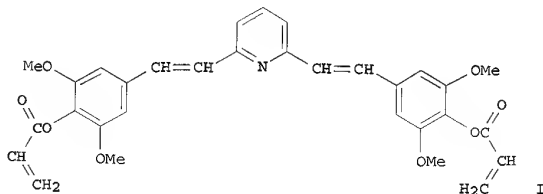
SOURCE: Journal of Organic Chemistry (1999), 64(11), 4191-4195
 CODEN: JOCEAH; ISSN: 0022-3263

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB The authors have developed a new polymerizable fluorescent probe,

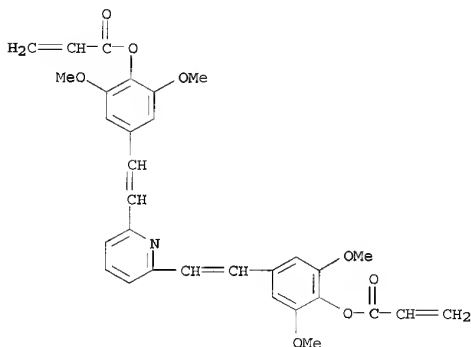
2,6-bis[2-(4-acryloyl-3,5-dimethoxyphenyl)vinyl]pyridine (I), that is quenched selectively by aromatic alcs. and amines, even in the presence of their aliphatic analogs, oxygen, and water. This selective quenching occurs with I dissolved in nonpolar solvents such as benzene or crosslinked inside a polymethacrylate matrix. Monomer I contains a central pyridine ring similar to C. V. Kumar's fluorophore (1993, 1994). However, it has a different conjugated core architecture and can also participate in radical copolymns. with conventional monomers. This novel fluorophore architecture leads to a different mechanism of fluorescence quenching from that of Kumar's fluorophore and also to a high degree of analyte selectivity.

- IT 225642-49-9P, 2,6-Bis[2-(4-acryloyl-3,5-dimethoxyphenyl)vinyl]pyridine-ethylene glycol dimethacrylate copolymer
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (preparation for the selective detection of phenols and anilines by fluorescence quenching)
- RN 225642-49-9 CAPLUS
- CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with 2,6-pyridinediylbis[2,1-ethenediyl(2,6-dimethoxy-4,1-phenylene)] di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 188646-84-6

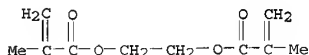
CMF C31 H29 N O8



CM 2

CRN 97-90-5

CMF C10 H14 O4



- CC 80-3 (Organic Analytical Chemistry)
Section cross-reference(s): 25, 37
- ST bisacryloldimethoxyphenylvinylpyridine fluorescent probe phenol aniline selective detection
- IT Amines, analysis
RL: ANT (Analyte); PRP (Properties); ANST (Analytical study)
(aromatic; preparation and NMR and use of 2,6-bis[2-(4-acryloyl-3,5-dimethoxyphenyl)vinyl]pyridine for selective detection of phenols and anilines by fluorescent quenching)
- IT Solvent effect
(on fluorescent quenching of 2,6-bis[2-(4-acryloyl-3,5-dimethoxyphenyl)vinyl]pyridine)
- IT Fluorescence quenching
(preparation and NMR and use of 2,6-bis[2-(4-acryloyl-3,5-dimethoxyphenyl)vinyl]pyridine for selective detection of phenols and anilines by fluorescent quenching)
- IT Phenols, analysis
RL: ANT (Analyte); PRP (Properties); ANST (Analytical study)
(preparation and NMR and use of 2,6-bis[2-(4-acryloyl-3,5-dimethoxyphenyl)vinyl]pyridine for selective detection of phenols and anilines by fluorescent quenching)
- IT 62-53-3, Benzenamine, analysis 100-61-8, N-Methyl aniline, analysis 106-44-5, analysis 108-39-4, analysis 108-44-1, m-Toluidine, analysis 108-95-2, Phenol, analysis 120-72-9, Indole, analysis 121-69-7, analysis
RL: ANT (Analyte); PRP (Properties); ANST (Analytical study)
(2,6-bis[2-(4-acryloyl-3,5-dimethoxyphenyl)vinyl]pyridine for selective detection of phenols and anilines by fluorescent quenching)
- IT 97-90-5, Ethylene glycol dimethacrylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(copolymer with 2,6-bis[2-(4-acryloyl-3,5-dimethoxyphenyl)vinyl]pyridine)
- IT 64-17-5, Ethanol, analysis 75-65-0, analysis 100-51-6, Benzyl alcohol, analysis 108-93-0, Cyclohexanol, analysis 109-73-9, Butylamine, analysis 111-92-2, Dibutylamine 121-44-8, analysis
RL: ANT (Analyte); PRP (Properties); ANST (Analytical study)
(fluorescent quenching of 2,6-bis[2-(4-acryloyl-3,5-dimethoxyphenyl)vinyl]pyridine by)
- IT 64-19-7, Acetic acid, analysis 67-56-1, Methanol, analysis 67-64-1, 2-Propanone, analysis 67-68-5, DMSO, analysis 78-93-3, 2-Butanone, analysis 100-66-3, Anisole, analysis 111-31-9, Hexanethiol
RL: ARU (Analytical role, unclassified); PRP (Properties); ANST (Analytical study)
(fluorescent quenching of 2,6-bis[2-(4-acryloyl-3,5-

- dimethoxyphenyl vinylpyridine by)
- IT 7703-74-4P, 2,6-Bis(bromomethyl)pyridine
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (in preparation of 2,6-bis[2-(4-acryloyl-3,5-dimethoxyphenyl)vinyl]pyridine)
- IT 61973-87-3P, 2,6-Bis(diethoxyphosphorylmethyl)pyridine 106852-80-6P,
 4-tert-Butyldimethylsilyloxy-3,5-dimethoxybenzaldehyde 225642-47-7P,
 2,6-Bis(2-(4-hydroxy-3,5-dimethoxyphenyl)vinyl)pyridine
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and NMR and reaction in preparation of
 2,6-bis[2-(4-acryloyl-3,5-dimethoxyphenyl)vinyl]pyridine)
- IT 188646-84-6P, 2,6-Bis[2-(4-acryloyl-3,5-dimethoxyphenyl)vinyl]pyridine
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (preparation and NMR and use of 2,6-bis[2-(4-acryloyl-3,5-dimethoxyphenyl)vinyl]pyridine for selective detection of phenols and anilines by fluorescent quenching)
- IT 225642-49-9P, 2,6-Bis[2-(4-acryloyl-3,5-dimethoxyphenyl)vinyl]pyridine-ethylene glycol dimethacrylate copolymer
 RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
 (preparation for the selective detection of phenols and anilines by fluorescence quenching)
- IT 814-68-6, 2-Propenoyl chloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with 2,6-Bis(2-(4-hydroxy-3,5-dimethoxyphenyl)vinyl)pyridine)
- IT 122-52-1, Triethyl phosphite
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with 2,6-Bis(bromomethyl)pyridine)
- IT 1195-59-1, 2,6-Pyridinedimethanol
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with hydrobromic acid in acetic acid)
- IT 18162-48-6, tert-Butyldimethylsilyl chloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with syringaldehyde)
- IT 134-96-3, Syringaldehyde
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with tert-butyldimethylsilyl chloride)

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2003 ACS ON STN

ACCESSION NUMBER: 1998:531712 CAPLUS

DOCUMENT NUMBER: 129:310123

TITLE: Molecular imprinting via a novel mixed acetal linker for a fluorescent sensor

AUTHOR(S): Reppy, Mary A.; Gin, Douglas L.

CORPORATE SOURCE: Department of Chemistry, University of California, Berkeley, CA, 94720, USA

SOURCE: Polymer Preprints (American Chemical Society, Division

PUBLISHER: of Polymer Chemistry) (1998), 39(2), 386-387
CODEN: ACPPAY; ISSN: 0032-3934
American Chemical Society, Division of Polymer
Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Some work was done incorporating imprinting polymers in sensors. The authors are studying the incorporation of a fluorescent event, thus creating a fluorescent sensor for the analyte. β -Estradiol was chosen to be used in an imprinting approach that a combination of the ionic and covalent methods. The β -estradiol converted into β -estradiol/HEMA acetal (I) at the 17-hydro group of the estradiol. The chosen fluorophore was a pyridine-based fluorophore-diacylate (II) previously developed in the authors' group. II quenched by phenolic species in solution and can form an acid-base complex with the phenol group on β -estradiol. Incorporation of fluorophore into the polymer as an acid-base complex with I creates a 2nd binding site in the cleaved polymer for the phenolic group of the β -estradiol and may allow the fluorescent detection of binding. The results can be used for developing a fluorescent sensor for β -estradiol.

IT 214463-49-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(imprinting polymer using novel mixed acetal linker for fluorescent sensor for β -estradiol)

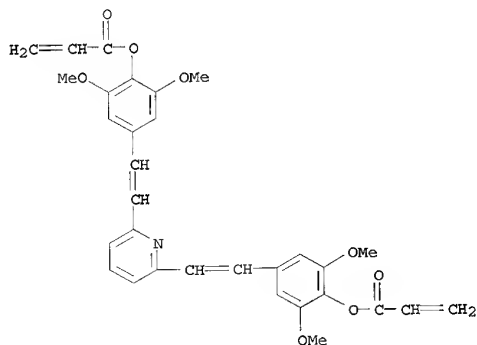
RN 214463-49-7 CAPLUS

CN 2-Propenoic acid, 1,2-ethanediyl ester, polymer with 2,2'-azobis[2-methylpropanenitrile] and 2,6-pyridinediylbis[2,1-ethenediyl (2,6-dimethoxy-4,1-phenylene)] di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 188646-84-6

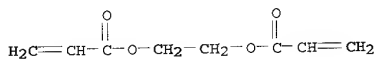
CMF C31 H29 N O8



CM 2

CRN 2274-11-5

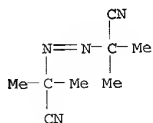
CMF C8 H10 O4



CM 3

CRN 78-67-1

CMF C8 H12 N4



CC 80-2 (Organic Analytical Chemistry)

Section cross-reference(s): 32, 37

ST estradiol acetal deriv imprinting polymer sensor; fluorescent sensor
imprinting polymer estradiol detn

IT Optical sensors
(fluorometric; mol. imprinting via novel mixed acetal linker for fluorescent sensor for β -estradiol)

IT 214463-49-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(imprinting polymer using novel mixed acetal linker for fluorescent sensor for β -estradiol)

IT 50-28-2, β -Estradiol, analysis
RL: ANT (Analyte); RCT (Reactant); ANST (Analytical study); RACT (Reactant or reagent)
(mol. imprinting via novel mixed acetal linker for fluorescent sensor for β -estradiol)

IT 188646-84-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(mol. imprinting via novel mixed acetal linker for fluorescent sensor for β -estradiol)

IT 214463-48-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(mol. imprinting via novel mixed acetal linker for fluorescent sensor for β -estradiol)

IT 67-66-3, properties 71-43-2, Benzene, properties 110-82-7, Cyclohexane, properties 2189-60-8, Octyl benzene
RL: PRP (Properties)
(porogen in preparation of imprinting polymer using novel mixed acetal linker for fluorescent sensor for β -estradiol)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L25 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:696920 CAPLUS

DOCUMENT NUMBER: 127:354859

TITLE: Covalently immobilized fluorocionophores as optical ion sensors

INVENTOR(S): Barnard, Steven Mark; Waldner, Adrian; Reinhoudt, David; Berger, Joseph

PATENT ASSIGNEE(S): Novartis Ag, Switz.; Barnard, Steven Mark; Waldner, Adrian; Reinhoudt, David; Berger, Joseph

SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	----	-----	-----
WO 9739337	A1	19971023	WO 1997-EP1695	19970404
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB,
GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN,
ML, MR, NE, SN, TD, TG

AU 9726366	A1	19971107	AU 1997-26366	19970404
EP 894261	A1	19990203	EP 1997-918111	19970404
R: CH, DE, FR, GB, IT, LI				
JP 2000508648	T2	20000711	JP 1997-536702	19970404
ZA 9703185	A	19971016	ZA 1997-3185	19970415
US 6417005	B1	20020709	US 1998-171330	19981207

PRIORITY APPLN. INFO.:

CH 1996-959 A 19960416
WO 1997-EP1695 W 19970404

OTHER SOURCE(S): MARPAT 127:354859

AB Fluoroionophores that are functionalized with reactive groups and correspond to I-R1-F-R2-G, wherein I is a monovalent residue of an ionophore, wherein F is a divalent residue of a fluorophore, wherein G is a functional group and R1 and R2 are each independently of the other a direct bond or a bridging group. The fluoroionophores may be covalently bound to carrier materials and are used as active components in polymer membranes of optical sensors for the detection of ions. The sensors are distinguished by a long usable life and a high° of sensitivity.

IT 198342-21-1P

RL: ARG (Analytical reagent use); DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(preparation of covalently immobilized fluoroionophores as optical ion sensors)

RN 198342-21-1 CAPLUS

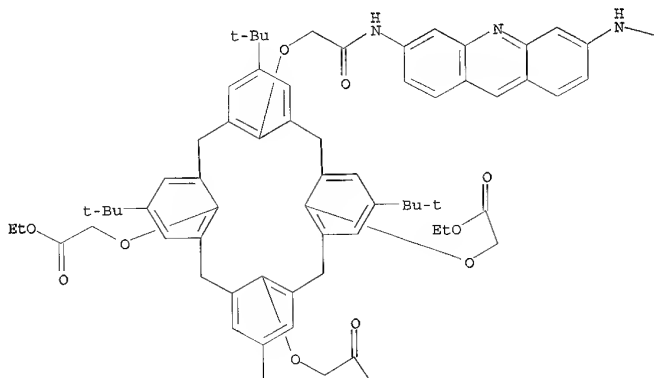
CN 2-Propenoic acid, 2-ethylhexyl ester, polymer with N,N-dimethyl-2-propenamide and triethyl 2,2',2''-[[5,11,17,23-tetrakis(1,1-dimethylethyl)-28-[2-[[6-[[8-[[2-methyl-1-oxo-2-propenyl]amino]octyl]amino]-3-acridinyl]amino]-2-oxoethoxy]pentacyclo[19.3.1.13,7.19,13.115,19]octacos-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-25,26,27-triyl]tris(oxy)]tris[acetate] (9CI) (CA INDEX NAME)

CM 1

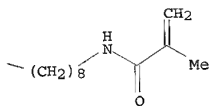
CRN 198342-07-3

CMF C83 H106 N4 O12

PAGE 1-A



PAGE 1-B



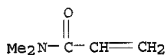
PAGE 2-A



CM 2

CRN 2680-03-7

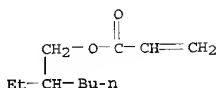
CMF C5 H9 N O



CM 3

CRN 103-11-7

CMF C11 H20 O2



- IC ICM G01N021-64
ICS G01N021-77; C07D219-08; G01N031-22; G01N033-84
- CC 79-2 (Inorganic Analytical Chemistry)
Section cross-reference(s): 27, 73
- ST covalently immobilized fluoroionophore optical ion sensor
- IT Fluorescent substances
Ionophores
(preparation of covalently immobilized fluoroionophores as optical ion sensors)
- IT Metacyclophanes
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of covalently immobilized fluoroionophores as optical ion sensors)
- IT Optical sensors
(sodium ion determination by optical sensor based on covalently immobilized fluoroionophores)
- IT 198342-21-1P
RL: ARG (Analytical reagent use); DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(preparation of covalently immobilized fluoroionophores as optical ion sensors)
- IT 198342-05-1P
RL: ARG (Analytical reagent use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of covalently immobilized fluoroionophores as optical ion sensors)
- IT 198342-07-3P 198342-17-5P 198342-18-6P 198342-19-7P 198342-20-0P
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of covalently immobilized fluoroionophores as optical ion sensors)

IT 78-67-1, AIBN 79-37-8, Oxalyl chloride 103-11-7 584-08-7, Potassium carbonate 920-46-7, Methacrylic acid chloride 2680-03-7 5460-29-7 17702-83-9 112452-84-3, N-Tosyl-3,6-diaminoacridine 113215-72-8 147513-54-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of covalently immobilized fluoroionophores as optical ion sensors)

IT 136734-88-8P 198342-08-4P 198342-09-5P 198342-12-0P 198342-14-2P 198342-16-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of covalently immobilized fluoroionophores as optical ion sensors)

IT 7440-23-5, Sodium, analysis

RL: ANT (Analyte); ANST (Analytical study)

(sodium ion determination by optical sensor based on covalently immobilized fluoroionophores)

L25 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:44332 CAPLUS

DOCUMENT NUMBER: 126:52080

TITLE: Supramolecular Electrode Materials Derived from Pyrrole-Substituted Ruthenium(II) Bipyridyl Calix[4]arenes

AUTHOR(S): Bettega, Herminia Cano-Yelo; Hissler, Muriel; Moutet, Jean-Claude; Ziessel, Raymond

CORPORATE SOURCE: Laboratoire d'Electrochimie Organique et de Photochimie Redox, Universite Joseph Fourier Grenoble 1, Grenoble, 38041, Fr.

SOURCE: Chemistry of Materials (1997), 9(1), 3-5

CODEN: CMATEX; ISSN: 0897-4756

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The synthesis of novel calix[4]arenes containing one and two tris-bipyridylruthenium(II) units bearing pendant pyrrole groups is described. Their oxidative electropolymerization in MeCN electrolyte allows the growth on carbon electrodes of thin polymer films containing both calixarene and ruthenium complex moieties. Copolymers with N-methylpyrrole also were synthesized. Also, the strong adsorption of the reduced forms of the complexes allows the reductive accumulation on electrode surfaces of thicker layers of monomers, which are readily polymerized upon electrooxidation. The study constitutes the 1st example of electropolymerization of calixarenes functionalized with transition metal complexes.

IT 184851-02-3P

RL: DEV (Device component use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(cyclic voltammetry in acetonitrile of carbon electrode modified with)

RN 184851-02-3 CAPLUS

CN Ruthenium(4+), tetrakis[4-methyl-4'-[4-(1H-pyrrol-1-yl)butyl]-2,2'-bipyridine- κ N1, κ N1'] [μ -[5,11,17,23-tetrakis(1,1-dimethylethyl)-26,28-bis[(5'-methyl[2,2'-bipyridin]-5-yl- κ N1, κ N1')]methoxypentacyclo[19.3.1.13,7.19,13.115,19]octacosane-1(25),3,5,7(28),9,11,13(27),15,17,19(26),21,23-dodecaene-25,27-diol]] di-, stereoisomer, tetrakis[hexafluorophosphate(1-)], homopolymer (9CT) (CA INDEX NAME)

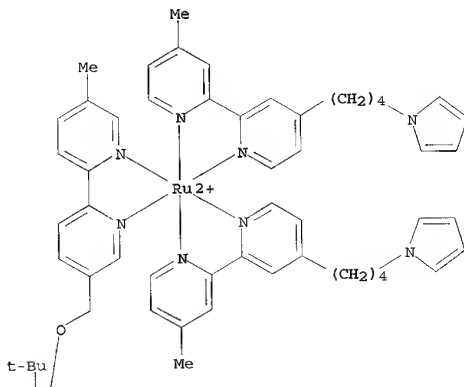
CM 1

CRN 184682-30-2

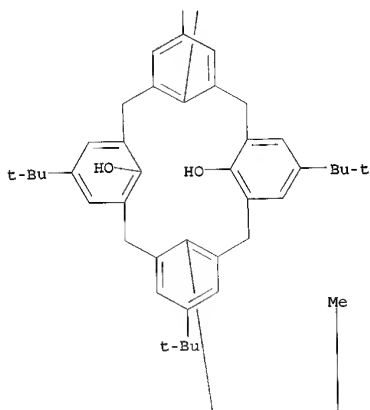
CMF C144 H160 N16 O4 Ru2

CCI CCS

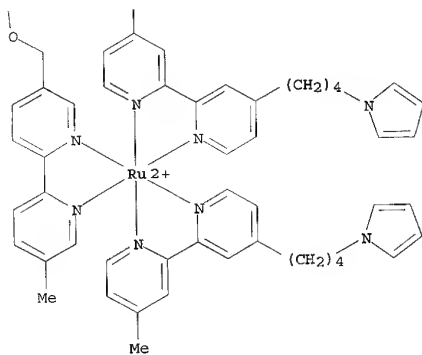
PAGE 1-A



PAGE 2-A

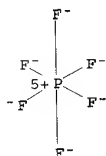


PAGE 3-A



CM 2

CRN 16919-18-9
CMF F6 P
CCI CCS



- CC 72-2 (Electrochemistry)
Section cross-reference(s): 35, 36, 66, 78
- ST supramol electrode derived pyrrole ruthenium calixarene; pyrrole substituted ruthenium bipyridyl calixarene electropolymer; adsorbed ruthenium bipyridyl calixarene pyrrole electropolymer; oxidative electropolymer ruthenium bipyridyl calixarene pyrrole; methylpyrrole copolymer ruthenium bipyridyl calixarene pyrrole
- IT Polymerization
Polymerization
(electrochem., oxidative; of pyrrole-substituted ruthenium bipyridyl calix[4]arenes in acetonitrile)
- IT Adsorption
(electrochem.; of reduced pyrrole-substituted ruthenium bipyridyl calix[4]arenes on carbon in acetonitrile)
- IT Conformation
Mass spectra
NMR (nuclear magnetic resonance)
(of pyrrole-substituted ruthenium bipyridyl calix[4]arenes)
- IT Reduction, electrochemical
Reduction potential
(of pyrrole-substituted ruthenium bipyridyl calix[4]arenes in acetonitrile: adsorption on electrode of reduced form)
- IT Adsorbed substances
(oxidative electropolymer. of pyrrole-substituted ruthenium bipyridyl calix[4]arenes in acetonitrile)
- IT Electrodes
(supramol. electrode materials derived from pyrrole-substituted ruthenium bipyridyl calix[4]arenes)
- IT 184851-01-2P 184851-02-3P 184851-03-4P
RL: DEV (Device component use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(cyclic voltammetry in acetonitrile of carbon electrode modified with)
- IT 7440-44-0, Carbon, uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PROC (Process); USES (Uses)
(cyclic voltammetry of carbon electrode in acetonitrile modified with)

- pyrrole-substituted ruthenium bipyridyl calix[4]arenes)
- IT 1923-70-2, Tetrabutylammonium perchlorate
 RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)
 (cyclic voltammetry of pyrrole-substituted ruthenium bipyridyl
 calix[4]arenes in acetonitrile containing)
- IT 96-54-8, N-Methylpyrrole
 RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
 (electrochem. oxidative polymerization pyrrole-substituted ruthenium
 bipyridyl
 calix[4]arenes with)
- IT 184682-33-5 184682-34-6 184682-35-7
 RL: FMU (Formation, unclassified); PRP (Properties); FORM (Formation,
 nonpreparative)
 (electrochem. reductive formation)
- IT 184682-29-9P 184682-31-3P
 RL: DEV (Device component use); PRP (Properties); RCT (Reactant); SPN
 (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent);
 USES (Uses)
 (preparation and cyclic voltammetry and electropolymer.: supramol. electrode
 materials derived from pyrrole-substituted ruthenium(II) bipyridyl
 calix[4]arenes)
- IT 145145-13-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with bipyridyl calix[4]arenes)
- IT 184682-32-4 184851-04-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with ruthenium (pyrrolyl)methylbipyridine chloro complex)

L25 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1991:493081 CAPLUS

DOCUMENT NUMBER: 115:93081

TITLE: Oligomers containing carbocyanine/flexible chain
 segments as nonlinear optical materials

AUTHOR(S): Yu, Luping; Chen, Mai; Dalton, Larry R.

CORPORATE SOURCE: Dep. Chem., Univ. South. California, Los Angeles, CA,
 90089-1062, USA

SOURCE: Polymer (1991), 32(8), 1369-75
 CODEN: POLMAG; ISSN: 0032-3861

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Oligomers containing carbocyanine units linked by flexible chain segments were
 prepared. The oligomers were cast into films and had improved miscibility
 with other host polymer matrices compared to the simple carbocyanine mols.
 Degenerate 4-wave mixing (DFWM) measurements showed that a pure oligomer
 film had high optical nonlinearity, $\chi(3)/\alpha = 9.0 \times 10^{-13}$
 esu.cm at $\lambda = 532$ nm. The reaction of acidic protons in a
 quinolidine quaternary salt with di-Et squarate was utilized to synthesize
 a polymer. The polymer containing 13 repeat units, had a diffuse and strong
 absorption in the visible region and did not exhibit a detectable DFWM
 signal at 532 or 1064 nm.

IT 135198-77-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation and nonlinear optical properties of)

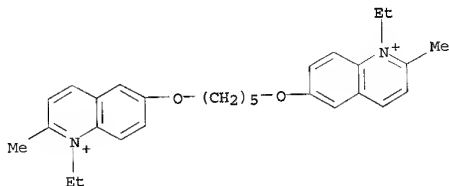
RN 135198-77-5 CAPLUS

CN Quinolinium, 6,6'-[1,5-pentanediy]bis(oxy)]bis[1-ethyl-2-methyl-,
diiodide, polymer with 3,4-diethoxy-3-cyclobutene-1,2-dione (9CI) (CA
INDEX NAME)

CM 1

CRN 132271-81-9

CMF C29 H36 N2 O2 . 2 I

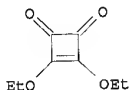


● 2 I⁻

CM 2

CRN 5231-87-8

CMF C8 H10 O4



CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36

ST carbocyanine oligomer nonlinear optical material

IT Polyethers, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)

(carbocyanine-containing, preparation and nonlinear optical properties of)

IT Optical nonlinear property

(of carbocyanine-containing polymers and oligomers)

IT Optical materials

(nonlinear, carbocyanine-containing oligomers, preparation and
characterization)

- of)
- IT 132271-82-0P 135072-99-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(oligomeric, preparation and nonlinear optical properties of)
- IT 1078-28-0P, 2-Methyl-6-methoxyquinoline
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and hydrolysis or quaternization of, with Et iodide)
- IT 135198-77-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and nonlinear optical properties of)
- IT 132271-81-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and polymerization of)
- IT 135609-10-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and reaction of, with Et iodide)
- IT 135609-09-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and reaction of, with dibromoethane)
- IT 63151-43-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and reaction of, with tri-Et orthoformate)
- IT 135609-11-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as model for carbocyanine-containing oligomers)
- IT 106-93-4, 1,2-Dibromoethane
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methylhydroxyquinoline hydrogen bromide)
- IT 122-51-0, Triethyl orthoformate
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methylmethoxyethylquinoline iodide)
- IT 75-03-6, Ethyl iodide
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with methylmethoxyquinoline or
bis(methylquinolinoxy)pentane)

=>